

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

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NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

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47119

IMPORTANT NOTIFICATION

International application No.
PCT/IT 03/00211

International filing date (day/month/year)
07.04.2003

Priority date (day/month/year)
12.04.2002

Applicant
FABIO PERINI S.P.A.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

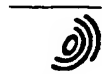
The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed inventions is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

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preliminary examining authority:



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Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:

D1: WO-A-00 73053 (LEW KOK HIN ;KOTANI TAEKO (JP); PROCTER & GAMBLE (US)) 7 December 2000 (2000-12-07)

D2: US-A-5 415 918 (MARTIN DAVID J ET AL) 16 May 1995 (1995-05-16)

D3: US-A-5269983 (GALYN A. SCHULZ) 14 December 1993 (1993-12-14)

D4: EP-A-1 151 852 (GEORGIA PACIFIC FRANCE) 7 November 2001 (2001-11-07)

2. In respect of Article 6 PCT, the following is observed.

2.1 The expression ".. less rigid ..", claim 1, line 8, is ambiguous;

Therefore the subject-matter of claims 1 lacks clarity, cf. the Guidelines III-4.5 PCT.

2.2 Some features of the device of claim 1 are defined in terms of the use of the apparatus rather than in apparatus terms per se, thereby causing a lack of clarity of the subject-matter of claim 1, cf. Article 6 PCT.

2.3 An independent claim should specify clearly all of the essential features needed to define the invention. This is not the case with the independent claims 1, 5 and 9, which shows a non correspondence of essential features. The method defined by claim 5 for instance, does not lead to a product defined by claim 9. Similar accounts for claims 1 and 9.

The aforementioned claims therefore lack conciseness. Moreover, lack of clarity of

the claims as a whole arises, since the plurality of independent claims makes it difficult, if not impossible, to determine the matter for which protection is sought, and places an undue burden on others seeking to establish the extent of the protection.

Hence, claims 1, 5 and 9 do not meet the requirements of Article 6 PCT.

- 2.4 The term "for" has been interpreted as "suitable for", cf. the PCT-Guidelines, C-III, 4.8.
3. The following is stated under reference to paragraph 2 of this written report, whereby it is to be noted, that unclear terms (herein printed in bold) cannot be used for unambiguously distinguishing over prior art for the assessment of novelty or inventive step.
- 3.1 The attention is further drawn to D2, column 1, lines 10 - 17, describing the state of the art technique of ply-bonding by embossing.
- 3.2 Document D1 discloses, cf. p. 9, line 25 - p. 10, line 2 and the abstract and the figures, (the references in parentheses applying to D1) a device suitable for joining at least two layers for forming a multilayer web product, comprising a rigid first cylinder (10) and a rigid second cylinder (12), the latter having protuberances (28), said first and second cylinders rotating in opposite directions about respective axes of rotation, and defining between themselves a first nip (16), and further comprising a pressure roller (14), with a resilient surface, that is **less rigid** than said first and second cylinders (10, 12), said roller interacting with said second cylinder (12) and means being provided to press said pressure roller (14) and said second cylinder (12) against each other, said pressure roller forming with said second cylinder (12) an embossing nip (18) arranged downstream of said first nip with respect to the direction of rotation of said second cylinder (12), wherein means are provided to press said first cylinder (10) and said second cylinder (12) against each other **with a pressure such as to produce a localized mutual adhesion of the two layers passing through said first lamination and ply-bonding nip**, due to a mingling of the fibers of the two layers; said two

previously laminated and ply-bonded layers being passed and embossed in said embossing nip.

The subject-matter of claim 1 differs therefrom in that the first cylinder is smooth.

The subject-matter of claim 1 is therefore considered to be novel, and consequently claim 1 meets the requirements of Article 33(2) PCT.

It is to be noted that it is generally known to the person skilled in the art that the feature "smooth cylinder" is an alternative to the feature "cylinder with embossing elements" of document D1 and can be interchanged with that feature where circumstances make it desirable.

The solution of a clarified claim 1 would therefore not be considered as involving an inventive step (Article 33(3) PCT).

- 3.3 Document D3 discloses, cf. column 1, lines 23-24 and column 8, lines 27 and fig. 5 (the references in parentheses applying to this document), a method for producing a web product comprising at least a first and a second layer in which said first and second layers are united by lamination at a plurality of spots, wherein said first and second layers are laminated in a nip (123) between a first cylinder (116) and a rigid second cylinder (112), the latter having protuberances (113), said cylinders being pressed against each other, and the two layers are embossed between said second cylinder (112) and a pressure roller (114) which are pressed against each other, said pressure roller having a resilient surface, whereby said first and second cylinder (116, 112) are pressed against each other with a pressure such as to produce a localized mutual adhesion of the two layers due to a mingling of the fibers of the two layers in said lamination spots corresponding to said protuberances (113), the bonded plies being embossed between said second cylinder (112) and said pressure roller (114) according to a design corresponding to the distribution of the lamination spots.

The subject-matter of claim 5 differs therefrom in that the first cylinder is rigid and smooth.

Although the term "rigid" is a relative term, the term "rigid" is defined in relation to another cylinder in this claim, for which reason the subject-matter of claim 5 is considered to be novel, and consequently claim 5 meets the requirements of Article 33(2) PCT.

It is to be noted that it is generally known to the person skilled in the art that the feature "rigid and smooth cylinder" is an alternative to the feature "cylinder with embossing elements and resilient surface" of document D3 and can be interchanged with that feature where circumstances make it desirable.

The solution of a clarified claim 5 would therefore not be considered as involving an inventive step (Article 33(3) PCT).

- 3.4 Document D2 discloses, cf. column 1, lines 11-19 and column 1, line 55 - column 2, line 35 and the figures (the references in parentheses applying to this document), a sheet product (10) comprising at least two layers united **along peripheral bands** (12) along which said layers are embossed with embossing design protrusions, said layers being bonded to each other **along said bands**, wherein said layers are additionally ply-bonded by mingling of the fibers of the two layers in localized ply-bonding compression areas, said areas having a distribution corresponding to that of said embossing design protrusions.

Consequently the subject-matter of claim 9 lacks novelty, and claim 9 does not meet the requirements of Article 33(2) PCT.

4. Dependent claims 2-4, 6-8 and 10 does not seem to contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step.
- 4.1 A cylinder with protuberances arranged in bands is known from D4, cf. the figures.
- 4.2 A rubber coated pressure roll is known from D1, cf page 9, line 31 - page 10, line 2.
- 4.3 Protuberances with of a height of 0.1 - 1 mm, in peripheral bands is known from

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D2, cf. column 6, example 1, lines 35-39 and figs. 1 and 2.

- 4.4 Longitudinal and transverse lamination and embossing bands are known from D2, cf. fig 2.
- 4.5 Lamination and embossing using two rigid cylinders and a resilient pressure roll is known from D1, cf. abstract.
- 5. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1, D2 and D3 is not mentioned in the description, nor are these documents identified therein.